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PITYOPSIS OLIGANTHA (ASTERACEAE) NEW TO TEXAS

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ABSTRACT

Pityopsis oligantha, Large-flowered Goldenaster, is documented as new to Texas. The species was encoutered and collected in the West Gulf Coastal Plain Wetland Longleaf Pine Savannah of deep east Texas (Jasper County).

KEY WORDS: Asteraceae, *Pityopsis*, Longleaf Pine savannah, Texas.

In the Manual of the Vascular Plants of Texas, Correll and Johnston (1970) included *Pityopsis oligantha* (Chapm. ex Torr. & A. Gray) Small under the synonym *Heterotheca oligantha* (Chapm.) Harms within the treatment of that genus. They mentioned that the species was "not yet noted from Tex. but possibly *to be encountered* [italics inserted] in extreme e. cos." Doubtless, the "record" of this species in the state originated here and was later included in Hatch et al. (1990) and Jones et al. (1997), both being checklists of the vascular plants of the state. It is not known why Correll and Johnson would consider the species as possibly occurring in Texas, for at that time (pre-1970), the distribution of *P. oligantha* was known to be west Florida and adjacent Alabama and Georgia (Small 1933). The lack of a supporting specimen has resulted in the species no longer being included as a part of the Texas flora (Cronquist 1980; Turner et al. 2003; Semple 2006; USDA, NRCS 2012). Recently, a specimen (Figure 1) collected by the authors in the Longleaf Pine savannah in 2000 has been determined to be *Pityopsis oligantha*. This specimen, cited following, substantiates the presence of the species in the state.

TEXAS. Jasper Co.: Kirbyville Airport, Kirbyville, flat periodically mowed area; heads yellow, 24 Sep 2000, *W.C. Holmes & J.R. Singhurst 11100* (BAYLU). Figure 1.

Pityopsis oligantha in Texas was documented in a globally rare (G1G2S1S2) West Gulf Coastal Plain Wetland Longleaf Pine Savanna community, occurring on saline soils (Brimstone silt loam, a Glossic Natraqualf) of the Pleistocene prairie terrace, with an open canopy of *Pinus palustris*. The dominants include *Pinus palustris, Sporobolus silveanus*, *Muhlenbergia capillaris*, and *Rhynchospora* spp. Important herbaceous species include *Agalinis fasciculata, Andropogon capillipes, Arnoglossum ovatum, Asclepias verticillata, Bigelowia nuttallii, Chaetopappa asteroides, Dalea candida var. candida, Desmodium* sp., *Dichanthelium* spp., *Echinacea sanguinea, Eurybia hemisphericum, Eupatorium leucolepis, E. rotundifolia, Eryngium integrifolium, Evolvulus sericeus, Hedyotis nigricans, Pycnanthemum tenuifolium, Iva angustifolia, Liatris acidota, Liatris punctata, Liatris pycnostachya, Lobelia puberula, Marshallia caespitosa, Mecardonia acuminata, Muhlenbergia capillaris, Neptunia lutea, Panicum virgatum, Paspalum floridanum, Physostegia*

Figure 1. *Pityopsis oligantha* (Holmes & Singhurst 11100, BAYLU). Photo by Darrel Vodopich.

virginiana subsp. *praemorsa, Polygala ramosa, Rhexia lutea, Rhexia virginica, Rhynchospora colorata, R. divergens, R. elliottii, R. glomerata, R. gracilenta, R. plumosa, R. microcarpa, Rudbeckia texana, Sabatia campanulata, Scutellaria integrifolia, Schizachyrium tenerum, Solidago sempervirens, Spartina spartinae, Sporobolus junceus, S. pyramidatus, S. silveanus, S. compositus* var. *compositus*, and *Stylisma aquatica*.

The major difficulty in classification of *Pityopsis* and related genera (*Heterotheca* and *Chrysopsis*) has been generic circumscription (see Gandhi and Thomas 1989 for an overview). However, specific recognition has seemingly been rather stable. *Pityopsis oligantha* is similar to *P. graminifolia* (Michx.) Nutt., which has two recognized varieties in Texas (Semple 2006). The latter species is widely distributed in the Pineywoods region of the state and also much of the Post Oak Savannahs, while *P. oligantha* is known only from the specimen cited above. The specimen was identified by use of the keys in Correll and Johnston (1970), Cronquist (1980), Gandhi and Thomas (1989) and Semple (2006), all keying to species with equal facility. Following we have produced a key derived from these sources.

1. Peduncles and involucre densely stipitate-glandular; cauline leaves mostly 2–7; heads 1–6 ..... **Pityopsis oligantha**
1. Peduncles and involucre not densely glandular-hairy; cauline leaves generally 10 or more, heads mostly 10 or more ..... **Pityopsis graminifolia**

Currently, *Pityopsis oligantha* has a Global Status of G3 (vulnerable) by reason of [as stated] being reported from four southern states of the USA, but with abundance not being known (Nature Serve 2012). These states are Florida, where it may be locally abundant in the panhandle (western Florida), Georgia, Alabama, and Mississippi. Not cited is Louisiana, where the species has been reported in Rapides Parish by Thomas and Allen (1996) and in eight parishes by USDA, NRCS (2012). Major threats to the species are land-use conversions, habitat fragmentation, succession, and forest management practices (Southern Appalachian Species Viability Project 2002). The species is apparently native in Texas and is considered to be a rare peripheral in the state (G3S1). It is presumably limited to longleaf pine savannahs in southeast Texas.

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